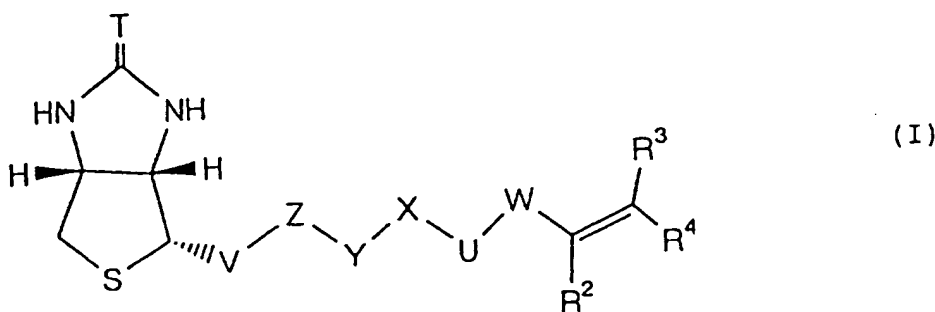


Amendments to the Claims

1-4. (Cancel)

5. (Currently amended) A polymer compound which exhibits UCST (upper critical solution temperature) in an aqueous solution, the polymer compound comprising a polymerizable biotin derivative of formula (I) ~~according to Claim 1~~ and acrylamide or methacrylamide as a copolymer component,



in formula (I), R^2 represents a hydrogen atom or an alkyl group; R^3 and R^4 each independently represents a hydrogen atom, an alkyl group or an aryl group;

T represents an oxygen atom or =NH;

W represents a single bond, a carbonyl group, a thiocarbonyl group or a C_{1-5} alkylene group; U represents a single bond or -NH-; X represents a single bond, a C_{1-8} hydrocarbon bond, an oxygen atom or -NH-; Y represents a single bond, a carbonyl group, a thiocarbonyl group, -NH-, a 1,2-dioxyethylene group or a 1,2-diaminoethylene group; Z represents a single bond, a carbonyl group, a thiocarbonyl group, a C_{1-5} alkylene group, an oxygen atom or -NH-; and V represents a single bond or a C_{1-5} alkylene group,

wherein the polymer compound has a weight-average molecular weight of about 500 to 1,000,000, and the molar ratio of acrylamide or methacrylamide to biotin is from 3 to 30.

6-12. (Cancel)

13. (Currently amended) The polymer compound according to Claim 5, further comprising a hydrophilic monomer selected from the group consisting of acrylic acid, methacrylic acid, acrylamide and methacrylamide, or hydrophobic monomer selected from the group consisting of acrylates, methacrylates, vinyl chloride, vinylidene chloride and styrene, as another copolymer component.

14. (Cancel)

15. (Currently amended) The polymer compound according to Claim 5, wherein a biotinated antibody is ~~immobilized~~ immobilized through an avidin immobilized antibody or a binding site of the avidin.

16-29. (Cancel)